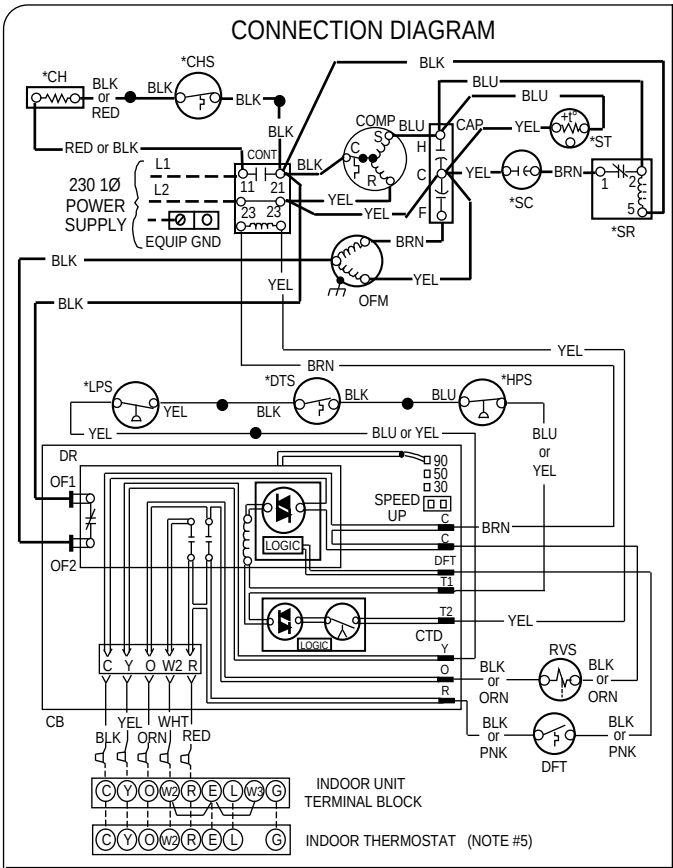
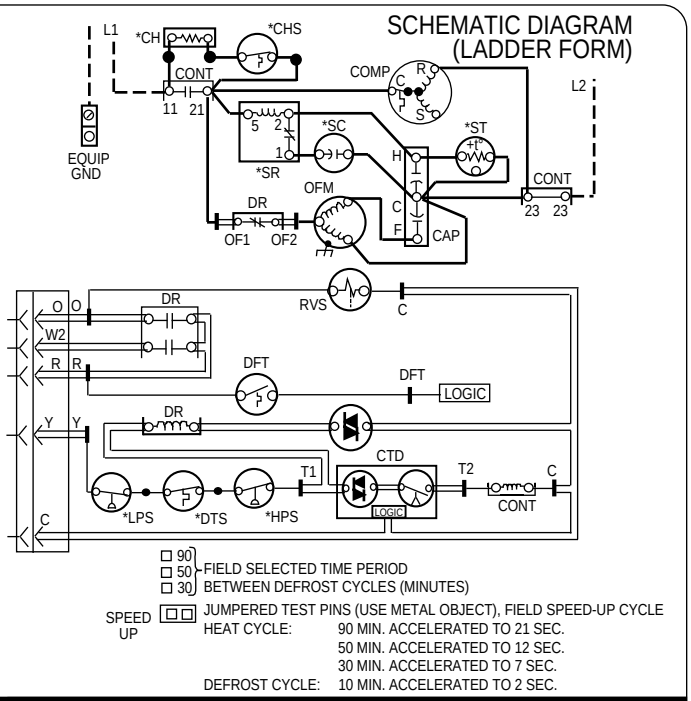
Wiring Diagrams





NOTE

THIS DEFROST CONTROL BOARD CONTAINS A FIVE MINUTE SHORT CYCLE PROTECTOR. A FIVE MINUTE DELAY WILL OCCUR BETWEEN COMPRESSOR OFF/ON CYCLES.

-NOTES-

1. Compressor and fan motor furnished with inherent thermal protection.
2. To be wired in accordance with National Electric Code (N.E.C.) and local codes.
3. N.E.C. class 2, 24 V circuit, min. 40 VA required.
4. Use copper conductors only, from disconect to unit.
5. Must use thermostat and sub-base as stated in pre-sale literature.
6. If indoor section has a transformer with a grounded secondary, connect the grounded side to "C" on the circuit board..
7. If any of the original wire, as supplied, must be replaced, use the same or equivalent wire.
8. Check all electrical connections inside control box for tightness.
9. Do not attempt to operate unit until service valves have been opened.
10. When DTS, LPS and HPS are not required, a jumper will be installed between Y and T1 on the defrost board.
11. Use conductors suitable for at least 75°C (167°F).

⚠ CAUTION

1. Compressor damage may occur if system is over charged.
2. This unit is factory charged with R-22 in accordance with the amount shown on the rating plate. The charge is adequate for most systems using matched coils and tubing not over 15 feet long. The best performance will be achieved when the unit operates with a suction gas superheat at the compressor inlet of 5 °F at normal rating conditions of the air conditioning and refrigeration institute (ARI). This chart may be used to approximate the charge if ARI rating conditions cannot be obtained. ARI rating conditions are equivalent to DOE test "A" conditions. See product data literature for required indoor air flow rates and for use of line lengths over 15 Ft.
3. Carefully relieve refrigerant pressure within this unit before final disposal.

-LEGEND-

	FACTORY POWER WIRING	CB	CIRCUIT BOARD
	FIELD POWER WIRING	DFT	DEFROST THERMOSTAT
	FACTORY CONTROL WIRING	DR	DEFROST RELAY AND CIRCUITRY
	FIELD CONTROL WIRING	*DTS	DISCHARGE TEMP. SWITCH
	CONDUCTOR ON CIRCUIT BOARD	*HPS	HIGH PRESSURE SWITCH
	COMPONENT CONNECTION	*LPS	LOW PRESSURE SWITCH
	1/4-INCH QUICK CONNECT TERMINALS	OFM	OUTDOOR FAN MOTOR
	FIELD SPLICE	RVS	REVERSING VALVE SOLENOID
	JUNCTION	*SC	START CAPACITOR
CAP	CAPACITOR (DUAL RUN)	*SR	START RELAY
*CH	CRANKCASE HEATER	*ST	START THERMISTOR
*CHS	CRANKCASE HEATER SWITCH		
COMP	COMPRESSOR		
CTD	COMPRESSOR TIME DELAY		
CONT	CONTACTOR		

* MAY BE FACTORY OR FIELD INSTALLED.

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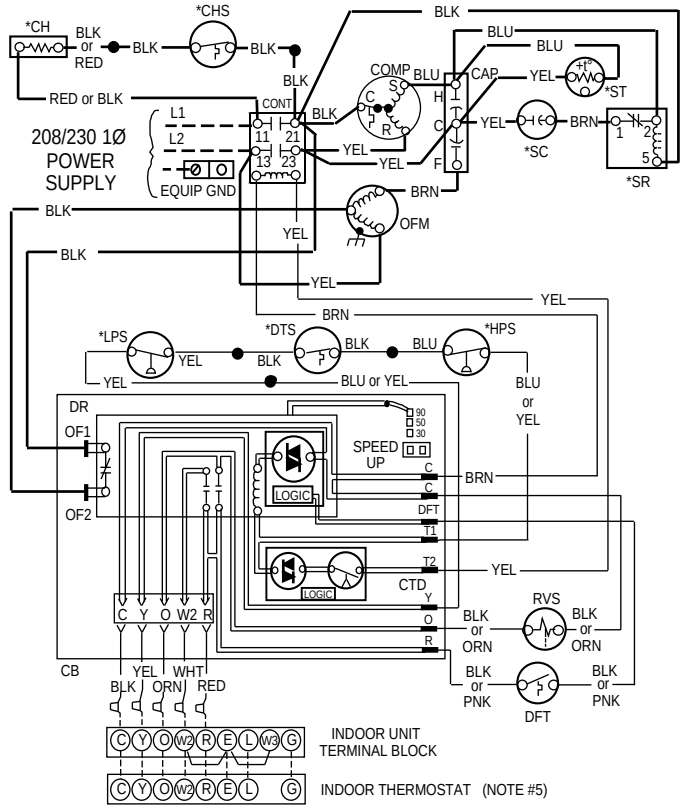
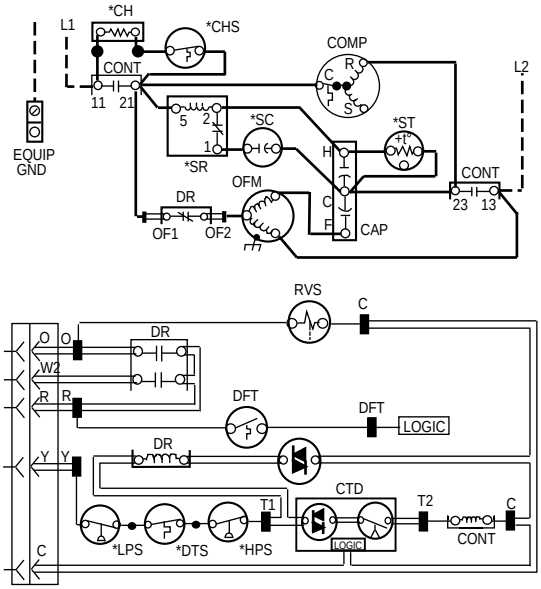
A97167

Fig. 1—38AYC018 (30), 024 (31), 030 (31), 036 (31), 042 (31), 048 (31) 208-230v, 1 Phase, 60 Hertz

CONNECTION DIAGRAM



SCHEMATIC DIAGRAM (LADDER FORM)



□ 90
□ 50 FIELD SELECTED TIME PERIOD
□ 30 BETWEEN DEFROST CYCLES (MINUTES)

SPEED UP □□ JUMPERED TEST PINS (USE METAL OBJECT), FIELD SPEED-UP CYCLE
HEAT CYCLE: 90 MIN. ACCELERATED TO 21 SEC.
50 MIN. ACCELERATED TO 12 SEC.
30 MIN. ACCELERATED TO 7 SEC.
DEFROST CYCLE: 10 MIN. ACCELERATED TO 2 SEC.

NOTE

THIS DEFROST CONTROL BOARD CONTAINS A FIVE MINUTE SHORT CYCLE PROTECTOR. A FIVE MINUTE DELAY WILL OCCUR BETWEEN COMPRESSOR OFF/ON CYCLES.

-NOTES-

1. Compressor and fan motor furnished with inherent thermal protection.
2. To be wired in accordance with National Electric Code (N.E.C.) and local codes.
3. N.E.C. class 2, 24 V circuit, min. 40 VA required.
4. Use copper conductors only, from disconect to unit.
5. Must use thermostat and sub-base as stated in pre-sale literature.
6. If indoor section has a transformer with a grounded secondary, connect the grounded side to "C" on the circuit board..
7. If any of the original wire, as supplied, must be replaced, use the same or equivalent wire.
8. Check all electrical connections inside control box for tightness.
9. Do not attempt to operate unit until service valves have been opened.
10. When DTS, LPS and HPS are not required, a jumper will be installed between Y and T1 on the defrost board.
11. Use conductors suitable for at least 75°C (167°F).

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-LEGEND-

———	FACTORY POWER WIRING	COMP	COMPRESSOR
– – –	FIELD POWER WIRING	CTD	COMPRESSOR TIME DELAY
———	FACTORY CONTROL WIRING	CONT	CONTACTOR
- - - -	FIELD CONTROL WIRING	CB	CIRCUIT BOARD
═══	CONDUCTOR ON CIRCUIT BOARD	DFT	DEFROST THERMOSTAT
○	COMPONENT CONNECTION	DR	DEFROST RELAY AND CIRCUITRY
▬	1/4-INCH QUICK CONNECT TERMINALS	*DTS	DISCHARGE TEMP. SWITCH
		*HPS	HIGH PRESSURE SWITCH
		*LPS	LOW PRESSURE SWITCH
	FIELD SPLICE	OFM	OUTDOOR FAN MOTOR
—●—	JUNCTION	RVS	REVERSING VALVE SOLENOID
CAP	CAPACITOR (DUAL RUN)	*SC	START CAPACITOR
*CH	CRANKCASE HEATER	*SR	START RELAY
*CHS	CRANKCASE HEATER SWITCH	*ST	START THERMISTOR

* MAY BE FACTORY OR FIELD INSTALLED.

⚠ CAUTION

1. Compressor damage may occur if system is over charged.
2. This unit is factory charged with R-22 in accordance with the amount shown on the rating plate. The charge is adequate for most systems using matched coils and tubing not over 15 feet long. The best performance will be achieved when the unit operates with a suction gas superheat at the compressor inlet of 5 °F at normal rating conditions of the air conditioning and refrigeration institute (ARI). This chart may be used to approximate the charge if ARI rating conditions cannot be obtained. ARI rating conditions are equivalent to DOE test "A" conditions. See product data literature for required indoor air flow rates and for use of line lengths over 15 Ft.
3. Carefully relieve refrigerant pressure within this unit before final disposal.

A97163

Fig. 2—38AYC060 (31) 208-230v, 1 Phase, 60 Hertz

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